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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: HECKMAN ET AL.

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EXAMINER: THOMPSON Mullish

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ART UNIT: 2813

TITLE: PLACEMENT TEMPLATE AND METHOD FOR PLACING OPTICAL DIES

Assistant Commissioner
for Patents
Washington, D.C. 20231

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October 28, 2002

I hereby certify that on the 28th day of October, 2002, this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.


Jeffrey D. Moy

Dear Sir:

AMENDMENT LETTER

This is in response to the Office Action dated September 27, 2002 in regards to the above identified patent application. Please amend the subject patent application as follows:

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IN THE CLAIMS

Please cancel Claims 14-26 without prejudice or disclaimer.

Please add the following new Claims:

New Claim 27. An optical integrated circuit, comprising:
a substrate;

A' a plurality of mirror sub-arrays; and

means attached to a top layer of the substrate for aligning the plurality of mirror sub-arrays during placement of the plurality of mirror sub-arrays.

Sub 83
New Claim 28. The optical integrated circuit of Claim 27, wherein the means is a template layer having rectangular apertures for receiving the plurality of mirror sub-arrays.

New Claim 29. The optical integrated circuit of Claim 27, wherein the means has protrusions perpendicular to the mounting surface of the substrate for guiding the plurality of mirror sub-arrays during placement.

New Claim 30. The optical integrated circuit of Claim 29, wherein the protrusions are tapered, having a narrow end farthest from the substrate, so that the mirror sub-arrays are guided toward the substrate.

Sub B4
New Claim 31. The optical integrated circuit of Claim 30, wherein the means has rectangular apertures for accepting the plurality of mirror sub-arrays, and wherein walls of the rectangular apertures are formed by the protrusions.

New Claim 32. The optical integrated circuit of Claim 27, further comprising an adhesive layer for attaching the plurality of mirror sub-arrays to the substrate.

New Claim 33. The optical integrated circuit of Claim 32, wherein the adhesive layer is cut to provide vents to permit the escape of gas during mounting of the plurality of mirror sub-arrays.

A1 cont.
New Claim 34. The optical integrated circuit of Claim 27, wherein the substrate has perforations for permitting the escape of gas during mounting of the plurality of mirror sub-arrays.

Sub B5
New Claim 35. The optical integrated circuit of Claim 27, wherein the means is bonded to the substrate by an eutectoid layer.

New Claim 36. The optical integrated circuit of Claim 27, wherein the means is an epitaxially grown semiconductor layer.

Sub
B5

A1

New Claim 37. The optical integrated circuit of Claim 27, wherein the means is an etched metal layer.

New Claim 38. The optical integrated circuit of Claim 27, wherein the means is a stamped metal layer.
